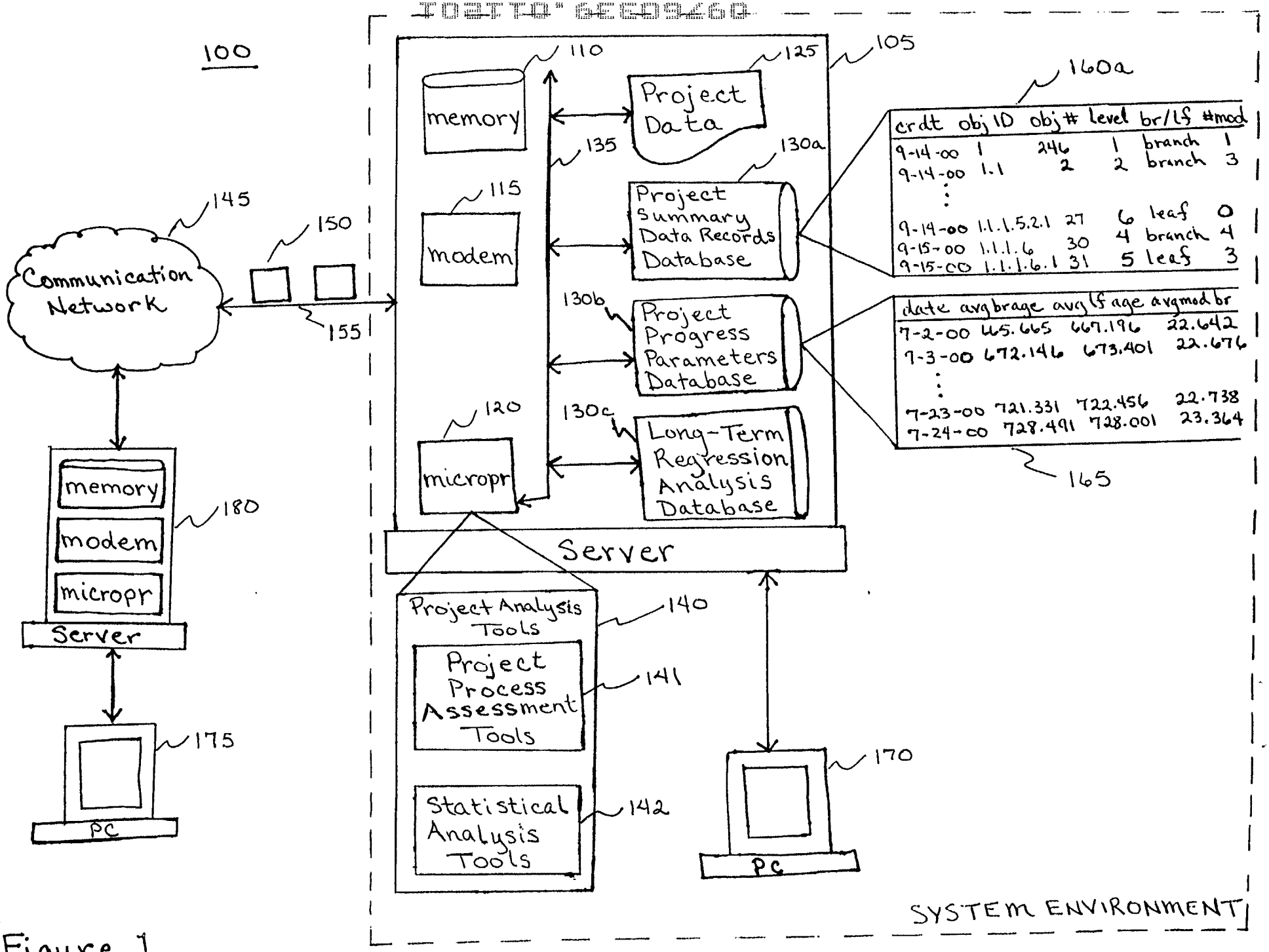
100
105
110
memory
125
Project Data
135
130a
Project Summary Data Records Database
115
modem
130b
Project Progress Parameters Database
120
micropr
130c
Long-Term Regression Analysis Database
Server
Project Analysis Tools
140
Project Process Assessment Tools
141
Statistical Analysis Tools
142
145
Communication Network
150
155
memory
modem
micropr
180
Server
175
PC
170
Pc
160a
crdt obj ID obj# level br/lf #mod
9-14-00 1 246 1 branch 1
9-14-00 1.1 2 2 branch 3
9-14-00 1.1.1.5.2.1 27 6 leaf 0
9-15-00 1.1.1.6 30 4 branch 4
9-15-00 1.1.1.6.1 31 5 leaf 3
date avgbrage avglfage avgmodbr
7-2-00 665.665 667.196 22.642
7-3-00 672.146 673.401 22.676
7-23-00 721.331 722.456 22.738
7-24-00 728.491 728.001 23.364
165
SYSTEM ENVIRONMENT

Figure 1

200a

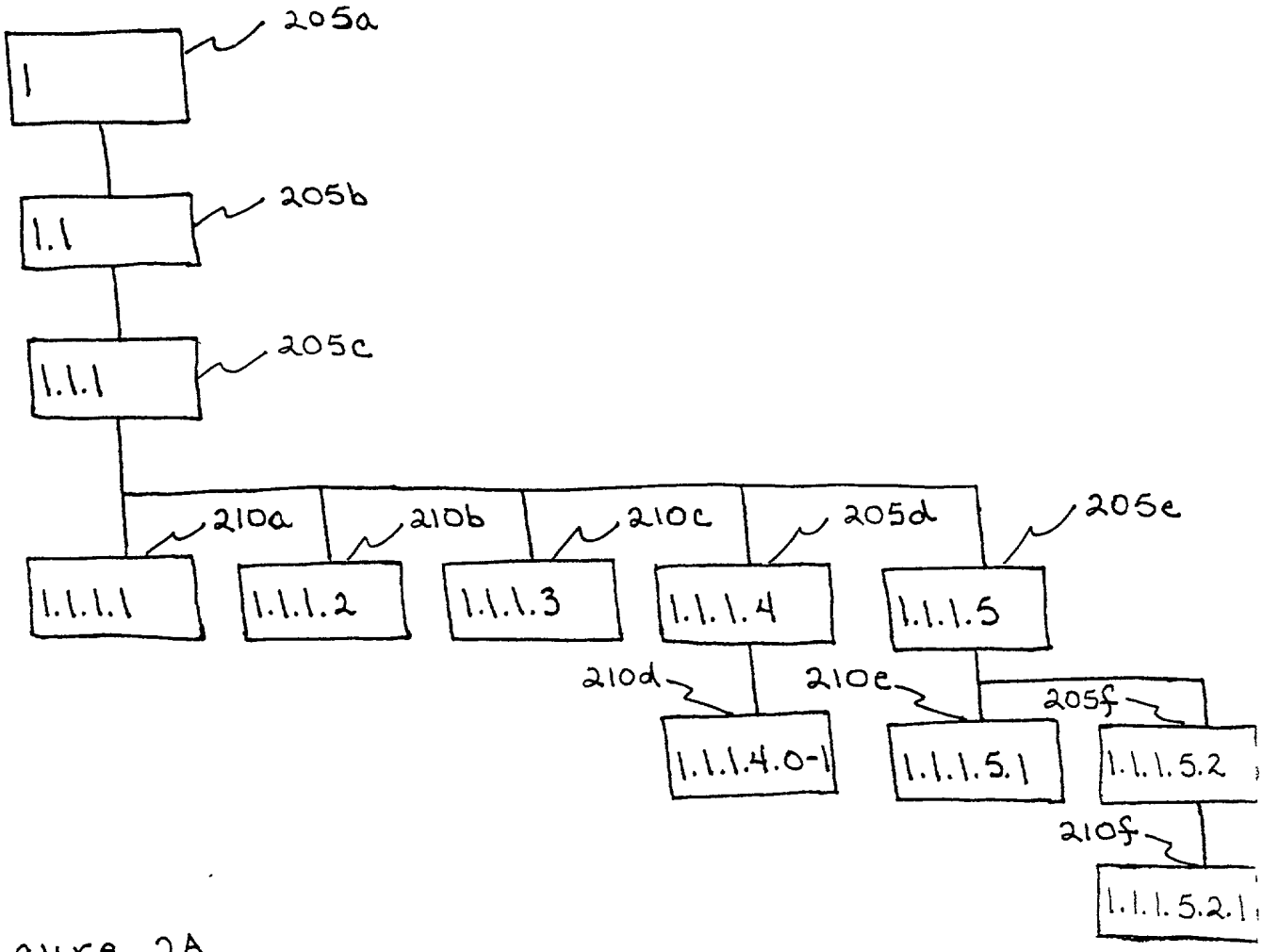

Figure 2A

160b

	PROJECT SUMMARY DATA RECORD								
	object ID	object no.	level in docu	br/lf	date of creation	# of mods	mod status	user	age of artifact
205a'	1	246	1	branch	9-14-00	1	true	<author>	18
205b'	1.1	2	2	branch	9-14-00	3	true	<author>	18
205c'	1.1.1	3	3	branch	9-14-00	3	true	<author>	18
210a'	1.1.1.1	4	4	Leaf	9-14-00	7	true	<author>	18
210b'	1.1.1.2	245	4	Leaf	9-14-00	4	true	<author>	18
210c'	1.1.1.3	15	4	Leaf	9-14-00	6	true	<author>	18
205d'	1.1.1.4	17	4	branch	9-14-00	3	true	<author>	18
210d'	1.1.1.4.0-1	18	5	leaf	9-14-00	3	true	<author>	18
205e'	1.1.1.5	19	4	branch	9-14-00	3	true	<author>	18
210e'	1.1.1.5.1	20	5	Leaf	9-14-00	3	true	<author>	18
205f'	1.1.1.5.2	22	5	branch	9-14-00	4	true	<author>	18
210f'	1.1.1.5.2.1	27	6	Leaf	9-14-00	0	false	<author>	18
	215	220	225	230	235	240	245	250	255

Figure 2B

300

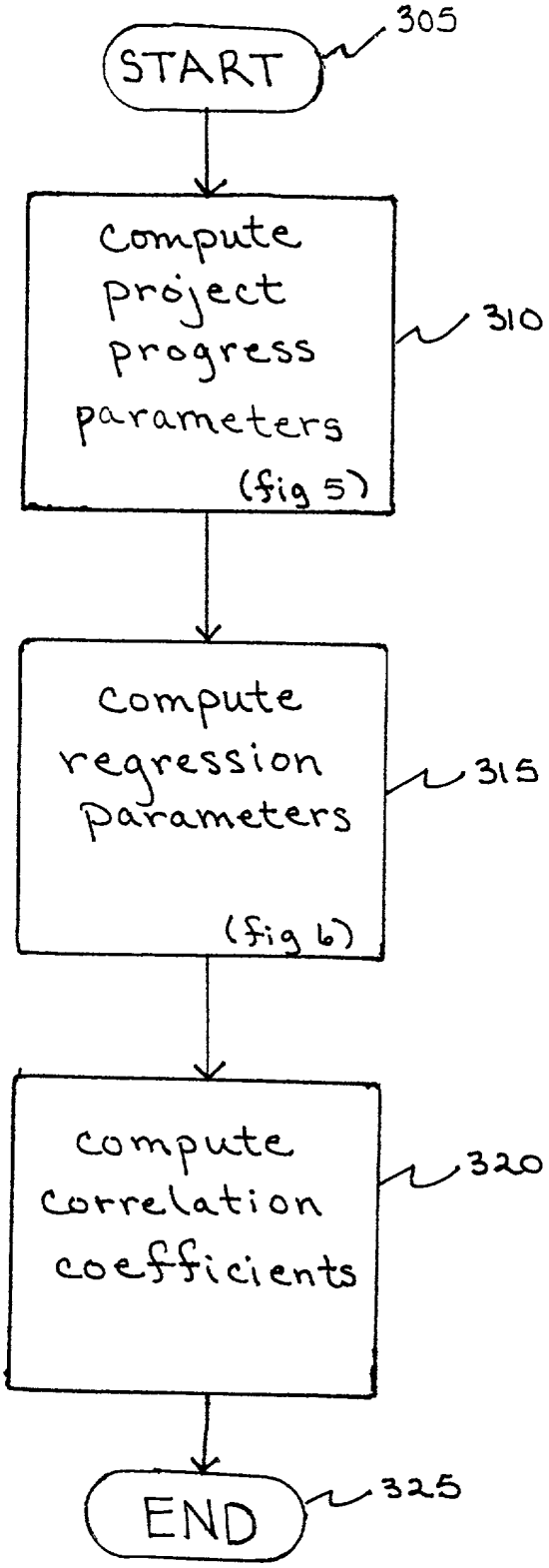
START
305
Compute project progress parameters
(fig 5)
310
Compute regression parameters
(fig 6)
315
compute correlation coefficients
320
END
325

Figure 3

400

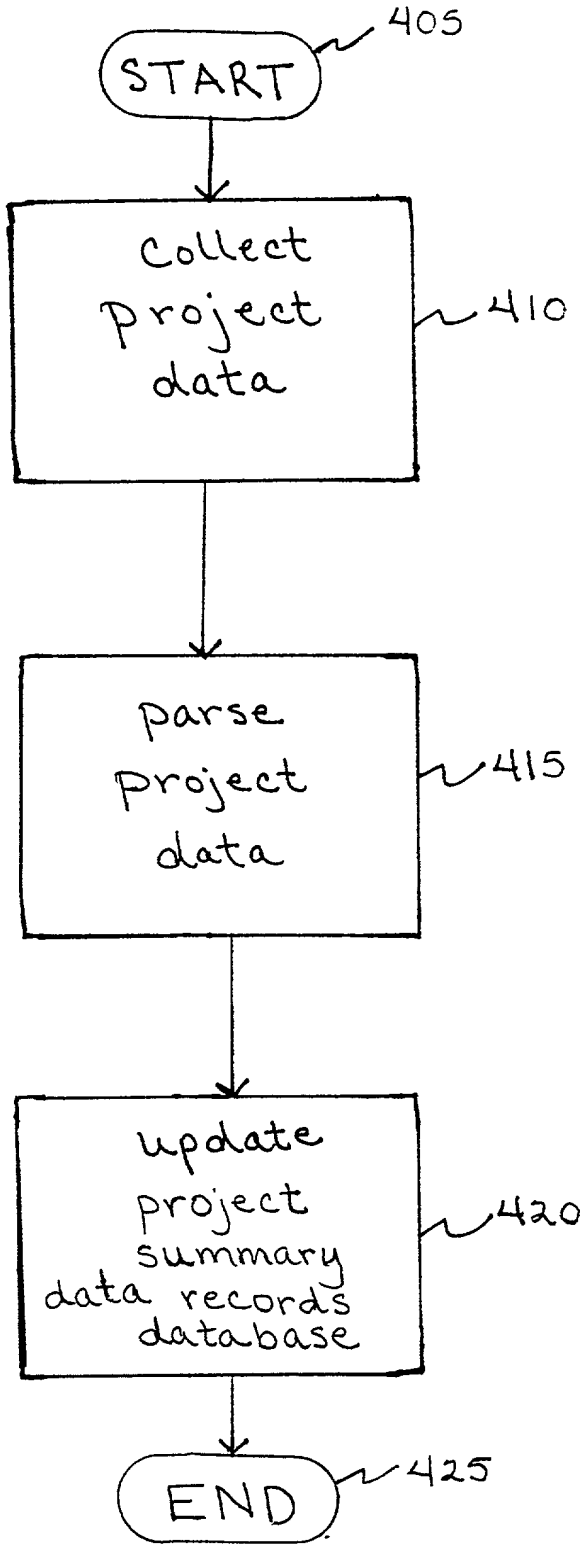
START
405
Collect project data
410
parse project data
415
update project summary data records database
420
END
425

Figure 4

500

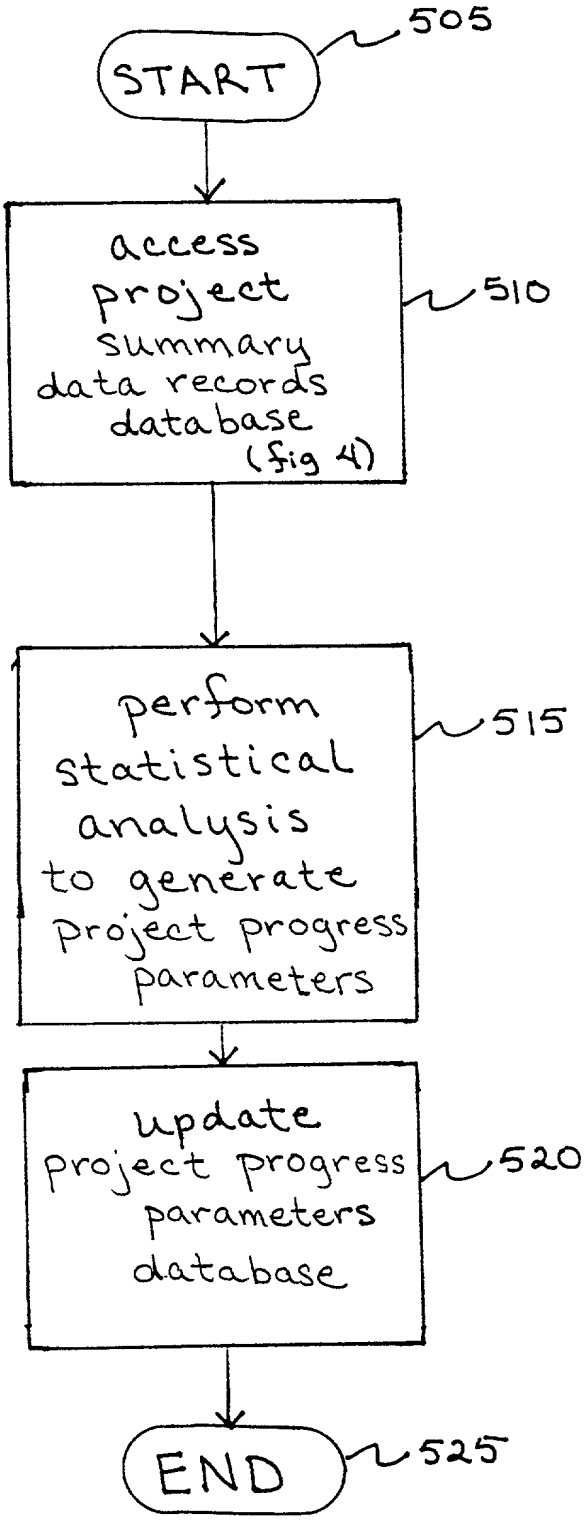
START
505
access project summary data records database (fig 4)
510
perform statistical analysis to generate project progress parameters
515
update project progress parameters database
520
END
525

Figure 5

600

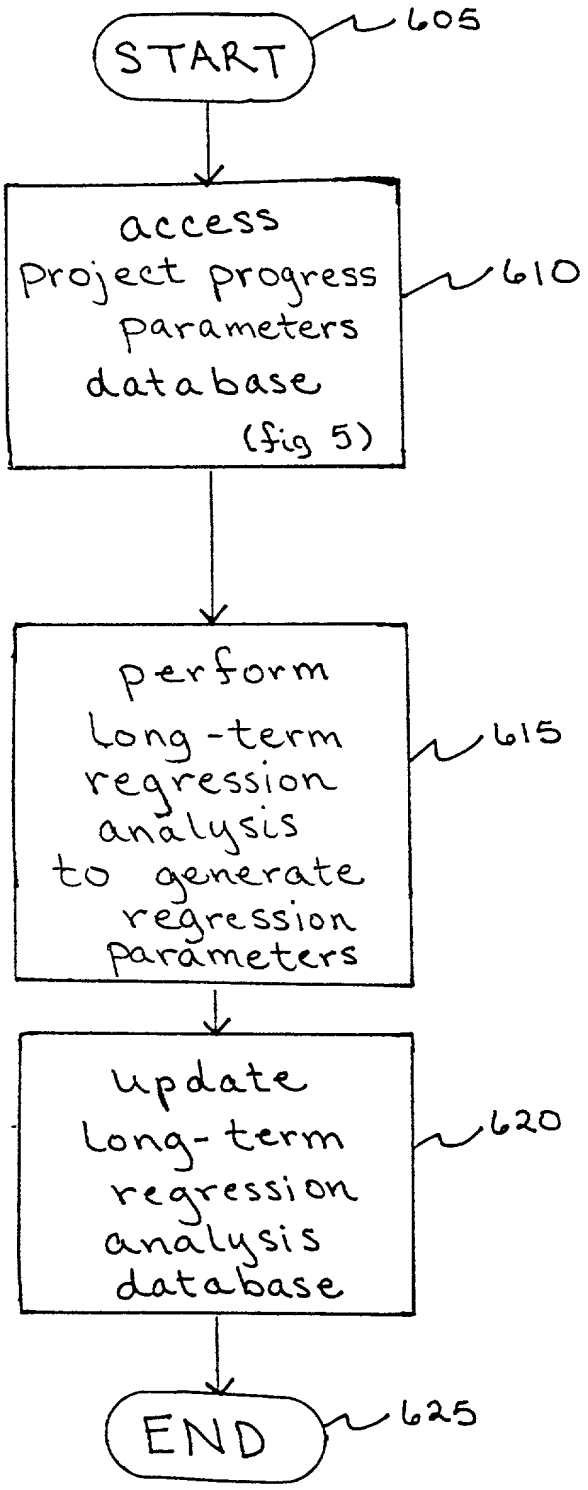
START
605
access Project progress parameters database (fig 5)
610
perform long-term regression analysis to generate regression parameters
615
update long-term regression analysis database
620
END
625

Figure 6

700

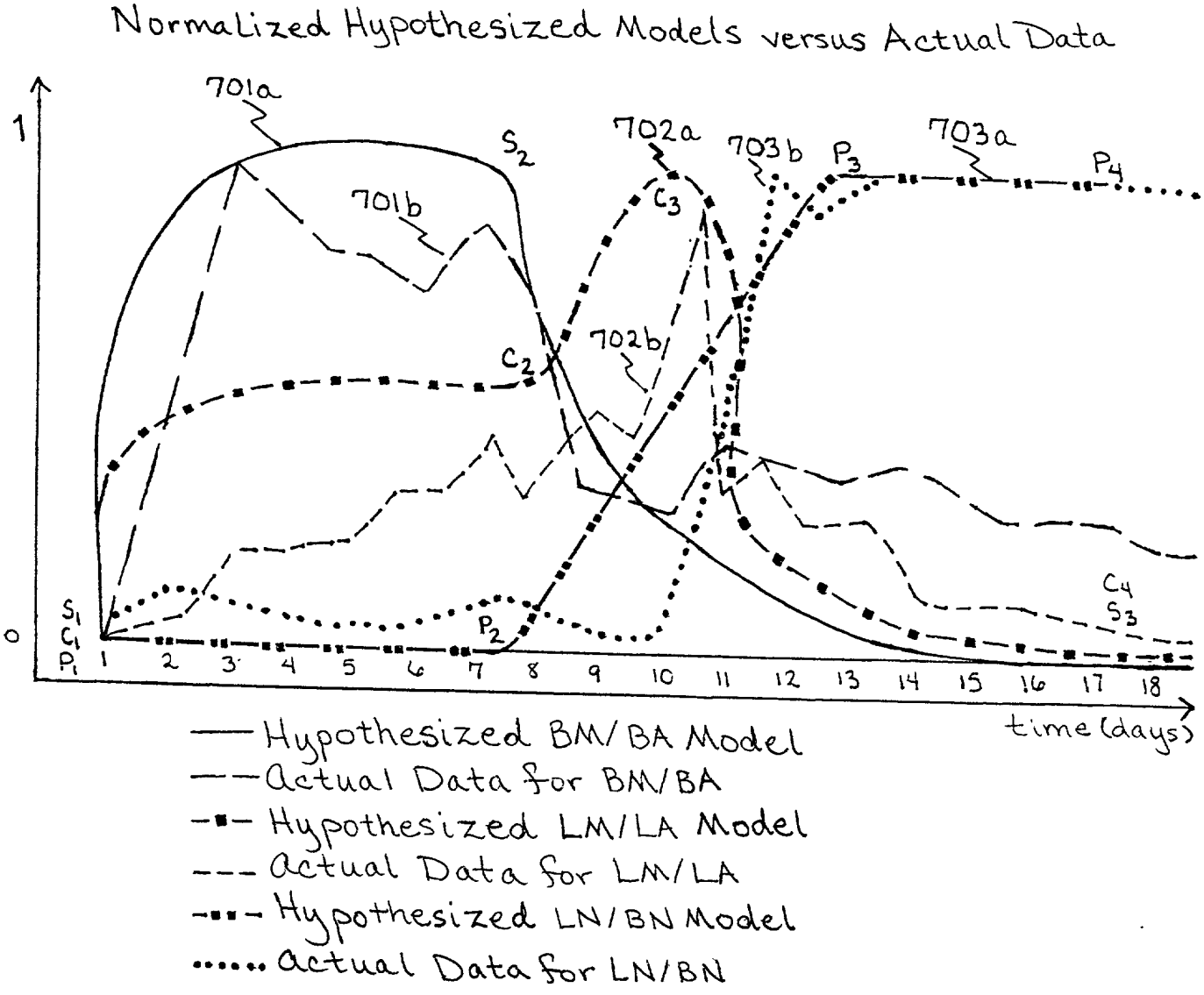
Normalized Hypothesized Models versus Actual Data
701a
701b
702a
702b
703a
703b
S_2
C_3
P_3
P_4
C_2
C_4
S_3
P_2
S_1
C_1
P_1
1
0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
time (days)
Hypothesized BM/BA Model
Actual Data for BM/BA
Hypothesized LM/LA Model
Actual Data for LM/LA
Hypothesized LN/BN Model
Actual Data for LN/BN

Figure 7

800

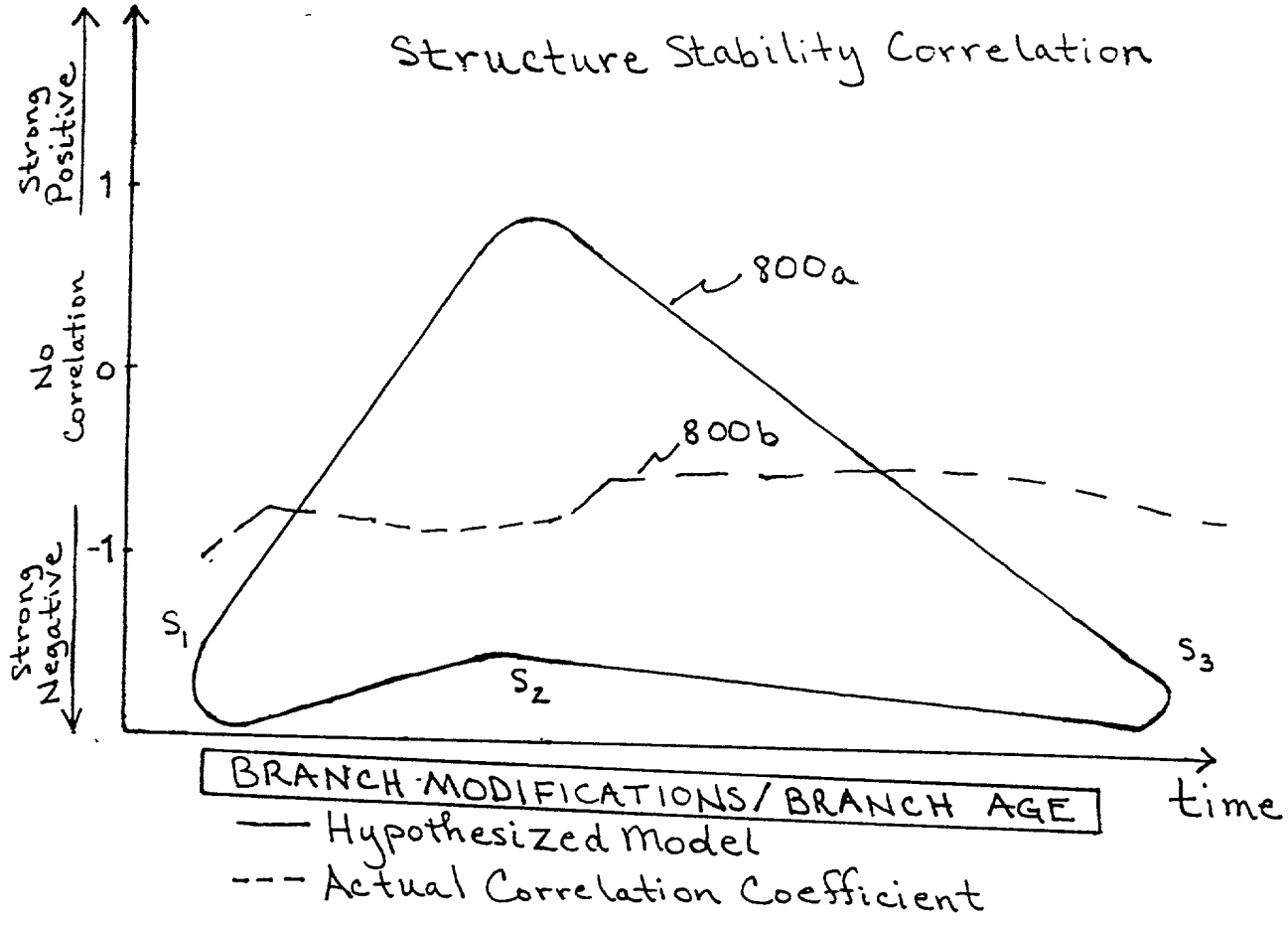
Structure Stability Correlation
Strong Positive
1
No Correlation
0
-1
Strong Negative
800a
800b
S1
S2
S3
BRANCH MODIFICATIONS / BRANCH AGE
time
Hypothesized Model
Actual Correlation Coefficient

Figure 8

900

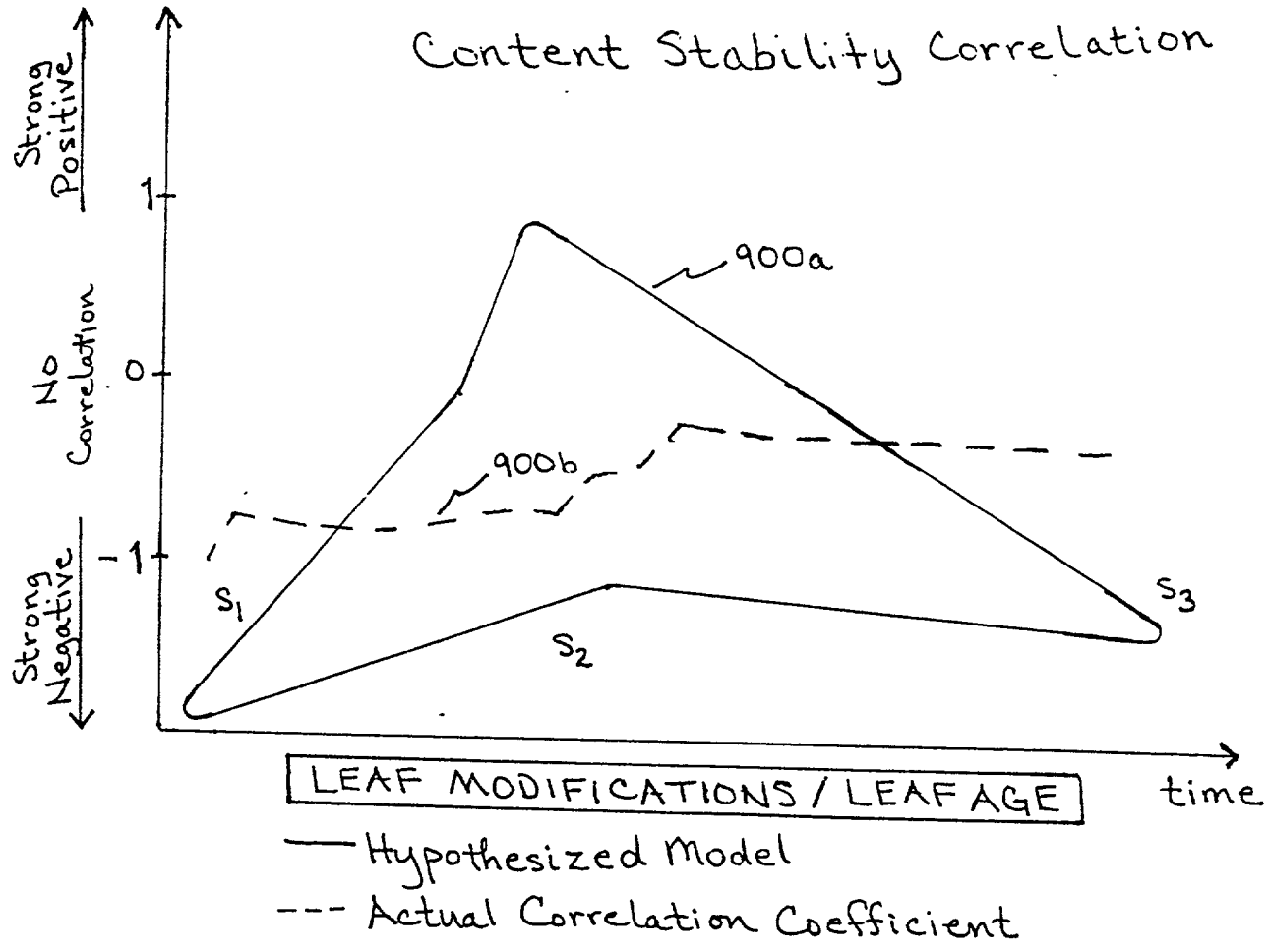
Content Stability Correlation
Strong Positive
1
No Correlation
0
-1
Strong Negative
900a
900b
S1
S2
S3
LEAF MODIFICATIONS / LEAF AGE
time
Hypothesized Model
Actual Correlation Coefficient

Figure 9

1000

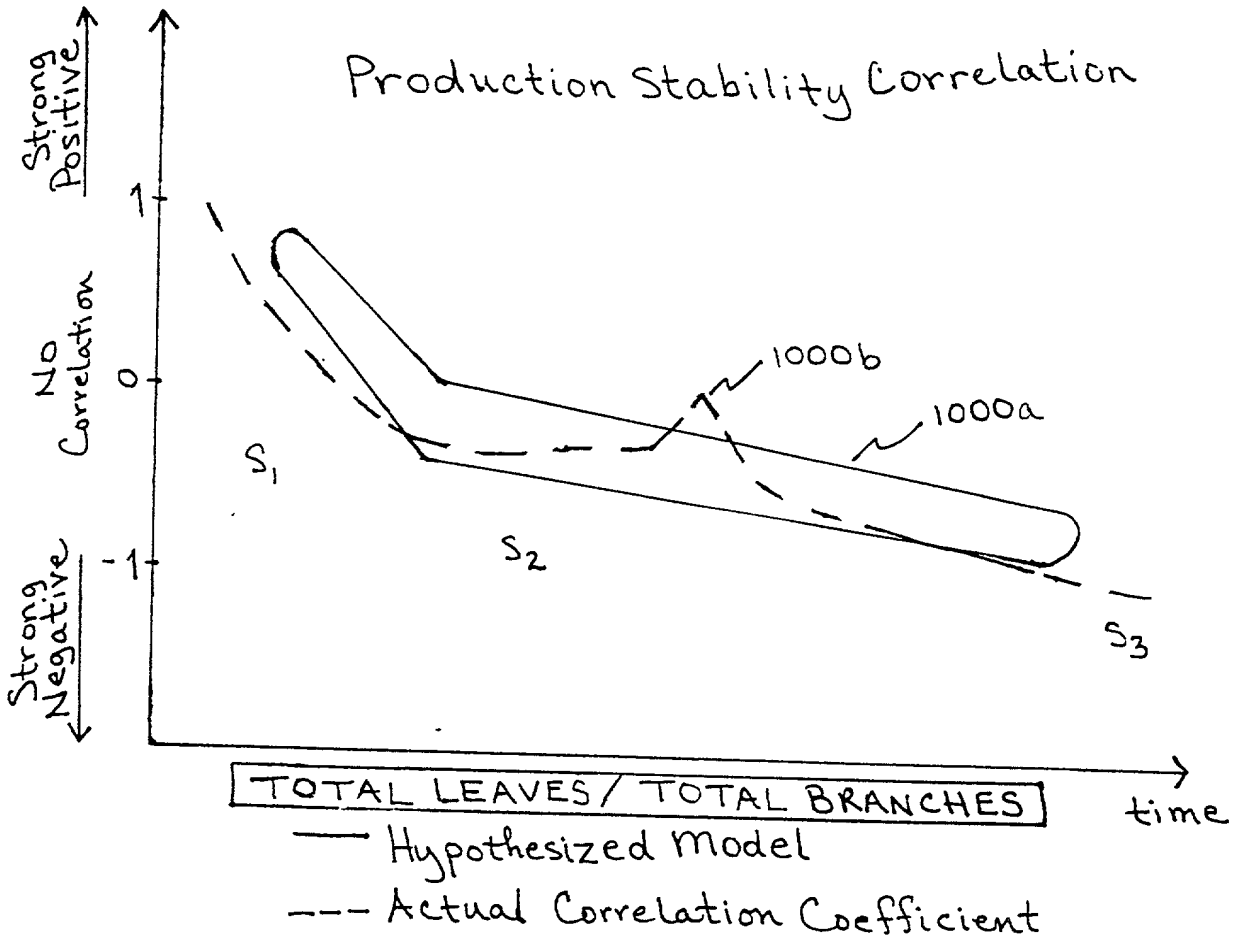

Figure 10